

Migrant Housing in the Coachella Valley: A Problem and a Solution

An Honors Thesis (HONR 499)

By

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Abstract

As thousands of permanent and seasonal farmworkers have descended upon the Coachella Valley a major housing crisis has occurred. Despite the long hours migrant workers spend working in the fields, they receive insufficient payment from their labor for living and housing expenses. Year after year, as the workers produce billions for the local economy, many find themselves living out of their car or sleeping on a dusty mattress in a parking lot. This has partially been a result of low wages, as well as restricting legislation that has left many families on the streets.

In response, my teammate and I attempted to address the issue at the architectural scale this past fall during the 2014 Cripe Design Competition. We provided strategies which lowered utility costs while also empowering the residents to live better lives. Though the issue can by no means be solved through architectural design alone, we are hoping that ours would enrich the lives of those migrant workers that live there.

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Overcrowded rooms, contaminated drinking water, no electricity, feral dogs, sewage in the streets, squatter shacks, living out of a car, sleeping on a piece of cardboard in a parking lot has regrettably become characteristic of the housing conditions many of the migrant workers in the Coachella Valley are forced to live with. While the Coachella Valley has become a desirable destination for luxury homes and extravagant living for the wealthy next to lush golf courses and mountain views, it has also become notorious for the poor living conditions of the many permanent and seasonal migrant workers that live in the valley. The squalid living conditions are a direct result of an increasing demand for housing in the Coachella Valley as the area has experienced a population boom in the last few decades, low wages for the farm workers labor, as well as legislation forcing farmers to abandon their housing options leaving their workers to find their own living arrangements.

The Coachella Valley is situated between the San Bernardino Mountains and the San Jacinto Mountains just north of the Salton Sea in Southern California. Roughly sixty miles north of Mexico, the valley has a hot arid climate year round with temperatures averaging close to eighty degrees during the winter months and over one-hundred degrees during the summer months. Thanks to the 123-mile Coachella Canal and its underground water delivery system, nearly 60,000 acres are irrigated with water from the Colorado River year round making the valley an ideal agricultural area in the region since the canal's completion in 1948. The Coachella Valley has since become one of the largest agricultural regions in California, renowned for its dates, citrus, grapes and bell peppers among many other crops that are grown there year round ("Agricultural Irrigation and Drainage").

The valley, in addition to the remainder of California's agriculture, accounted for almost "\$27 billion in gross income in 2000, with an estimated \$100 billion in related economic activity". "Unlike much of the nation's agriculture, which has been transformed by mechanization, California remains heavily dependent upon a large seasonal workforce,

since most of the state's 350 crops cannot be harvested by mechanical means. This has led to some 732,000 farm workers, employed on the state's 85,000 farms." When household members are counted, the total number of people involved is 1.3 million. 95% of the workers are Latino and 34-42% are undocumented (United States).

Coachella Valley itself has seen a major increase in its population over the last few decades. "Its total population has increased by 500% over the past 25 years from 80,000 residents in 1980 to approximately 400,000 in 2005" making the valley one of the fast growing areas in the country (Colletti, Joe). As a result, there has been a heavy demand for housing in the recent past and not enough supply, raising housing costs. This has placed a massive financial burden on migrant workers in the valley as they struggle to pay rent; some are now forced to live in squatter shacks or even on the street. According to a policy brief on the East Coachella Valley housing, "up to 50% of renters and 61% of owners pay more than 50% of their income on housing costs. This is considered an extreme cost burden. According to the 2000 census, 44% of Riverside County renter occupied households were cost burdened as defined by spending 30% of income on housing costs" (*Policy Brief: East Coachella Valley Housing*). This burden leaves the workers with insufficient funds for food, medical expenses, etc. so they constantly have to choose between basic necessities; an average household income of less than \$15,000 a year does not provide enough for the migrant worker families with their minimum wage (Colletti, Joe).

This financial burden has led to a large number of housing related issues for migrant workers and their families. As individuals and families struggle to pay for their housing on their own, sharing living space becomes their only option. Data derived from the 2000 census found that 18% of all rental units were overcrowded. A 2010 American Communities Survey showed that 15-35% of all rental dwellings were overcrowded in the East Coachella Valley specifically. This is far above the national average of 5.7% of overcrowded rental units found within the U.S. As if the overcrowded conditions were not already enough, studies have shown that many of the dwelling units that migrant workers find themselves living in are not fit for human habitation. If a house

endangers the health, safety, or welfare of either the residents or the public at large, it is considered substandard. Reasons for a dwelling to be considered substandard could include faulty electrical wiring, inadequate plumbing, poor fire ratings, structural hazards, and an inability to protect the inhabitants from the weather. Many of these dwellings do not have electricity, causing there to be no refrigerator for their food, and no cool respite from the heat. It has been found that 10% of the housing in Riverside County is considered substandard, most of these being disproportionately occupied by Hispanic renters. “The 2000 census indicates that 81,627 housing units in Riverside County were built before 1960 (the standards now being outdated). Countywide, 3,407 housing units lack kitchen facilities and 2,360 lack complete plumbing.” Though it has not been verified, advocates for better housing in for workers in Coachella estimate that the rates of substandard housing in the valley are closer to 50% (*Policy Brief: East Coachella Valley Housing*).

An infamous example of the squalor conditions that migrant workers find themselves living in was the mobile home park called Duroville, named after the owner of the establishment Harvey Duro. This mobile home park has served as the leading example of the horrible conditions migrant workers live in as advocates fight for their rights. Harvey Duro opened the 40-acre park, formally called Desert Mobile Home Park, in 1998 after a Riverside County crackdown on code violations forced other parks to close down. Located on the reservation of the Torres-Martinez Desert Cahuilla Indians, the park was just out of reach of county inspectors. This allowed the conditions of the park and five hundred some trailers on the site to quickly deteriorate. With poor infrastructure, no jurisdiction, and almost an estimated 4,000 people living there at one time, the park became iconic for its raw sewage in the streets, feral dogs on the run, a toxic garbage dump next door, and brown water pouring out of the faucets.

Eventually the federal government, having jurisdiction over Indian reservations, responded to pleas from the local community and began addressing the safety issues the Duroville residents faced. Tom Flynn, appointed by a federal judge as a receiver to oversee the mobile home park, commented

on the condition of the establishment by saying “a lot of the issues we dealt with were third world safety and health issues. I’d never seen that in the United States.” After Harvey Duro failed to make the improvements the federal courts deemed were necessary for the safety of the residents, the park was forced to shut down in 2013 and most of the residents moved to a government subsidized housing block called Mountain View. There the tenants pay \$425 a month, fifty dollars more than what they paid for the squalor conditions found at Duroville (Olson, David).

Though many migrant workers and their families live in these overcrowded and unsanitary conditions found in establishments such as Duroville, they are at least thankful to have a roof over their heads. According to the Riverside Coachella Valley Farm Worker Survey, “almost one-third (30%) live while in the Coachella Valley in situations not meant for human habitation such as outdoors or other locations not meant for sleeping, cars/truck/vans/trailers on streets or in parking lots, trailers or RVs on private residential property or in converted garages.” This results in a serious humanitarian crisis in the Coachella Valley, particularly during a harvest season, as there is a multitude of farm workers that have no shelter to take refuge from the heat, no water to quench their thirst, no shower to wash away the dirt, sweat, and chemicals that covered their skin while they worked. These extremely living conditions under the relentless sun have led to various health problems which have been documented extensively by many surveys.

At this point it may be fitting to ask a simple, yet loaded question: how did the living conditions ever get to be this bad for a specific demographic of workers within the United States? The answer is not a simple one. It used to be that the farms on which migrant farmhands came to work would provide housing for them. However, as smaller scale farming has been replaced by much larger, corporate, industrial farming operations. At the same time legislation has also been enacted into law making it difficult for many farmers to be able to provide housing for their employees. “Many agricultural employers, both farmers and labor contractors, have torn down or abandoned thousands of housing units that were once provided to migrant workers [Peck, 1989]. One estimate suggests that of approximately 5,000 seasonal housing units that existed in 1968,

fewer than 1,100 units remained in 1988". The reason for this, farmers say is "that the cost of meeting increasingly stringent standards is simply uneconomical and that state requirements conflict with federal standards, while advocates argue that state law requires that housing for farm laborers meet the minimal standard of decency set by the Employee Housing Act" (Villarejo, D., Schenker, M.). It turned out that the legislation written attempting to protect the living conditions of the migrant workers led many farmers to tear down their accommodations they previously offered as they found it financially impossible for them to provide the amenities. The Migrant and Seasonal Agricultural Worker Protection Act, passed in 1983, was one such law. The act states that "each person or organization which owns or controls a facility or real property used for housing migrant workers must comply with federal and state safety and health standards. A written statement of the terms and conditions of occupancy must be posted at the housing site where it can be seen or be given to the workers" (Fact Sheet #49). Many farmers, knowing their housing arrangements did not live up to current standards and unable to financial support the investment of newer buildings, simply stopped providing housing for their workers causing many workers, particularly the seasonal hands, to live out of their vehicles or on the streets.

While the Migrant and Seasonal Agricultural Worker Protection Act caused many farmers to tear down their housing, other acts of legislation, such as the 1992 Farm Labor Housing Protection Act, allowed for small housing developments to be established without the surveillance of the local jurisdiction. Originally an emergency effort to provide housing for migrant workers, the bill was written by by Richard Polanco, a Los Angeles assemblyman in order to "allow growers to build (housing) parks of up to 12 units without obtaining zoning and land use permits". However, landlords quickly developed over 400 some parks that became known as "polancos." Because they were unpermitted, the polancos commonly had many health and safety risks which included placement of wells, septic systems and safe electrical wiring (Brown, Patricia L.). Unfortunately in both cases, the migrant workers were either left without a home or given one that was unsafe to live in as landowners expedited the law.

As the Coachella Valley produces billions of dollars in revenue each year, thousands of migrant workers seasonally descend upon the valley in the hope of earning enough money to simply put food on the table. Unfortunately, after the long back breaking days in the arid heat these farmhands return either to their shoddy homes or to their mattress in a parking lot. While they labor to make millions for the lucrative farming businesses, they receive nothing more than minimum wage. At times it seems that even their human dignity is stripped from them. The life of the migrant worker has to a certain extent, become the 21st century form of slavery. Many of the workers find themselves in a different land which promises opportunity compared to what they can find in Mexico. However when they arrive and work here they encounter language and cultural barriers as well as legislation that stand in their way of ever advancing as they struggle to get by.

In light of this, a national architectural competition was designed as a means to raise national awareness of this issue. As a senior in architecture at Ball State University, the College of Architecture and Planning chose to participate during our senior year design competition. Many of us, after watching several documentaries and researching the issue, became perplexed and bewildered after we began to understand the scale, magnitude, and complexity of what was before us. Sadly, the solution to this social tragedy is not just architectural; there are several layers to the problem that are political, economic, and social as well. The remainder of this paper is by no means attempting to simplify or minimize the complexity of these challenges to an architectural solution, but rather an effort to explore how an architectural solution could do its own part to help.

During the competition, my teammate and I attempted to address the issues at several scales. Our goal for the competition was to develop housing on the site that would foster and strengthen a sense of community at all levels, from the intimate family dwelling of a single unit to the macro scale of the surrounding town of Oasis. The hope was that the same workers that toil in the fields around Oasis together will now be able to live in an environment that promotes a safe and clean lifestyle as well as a supportive and positive community atmosphere. Through an organization of several

clustered housing complexes, the living units are positioned to provide both individual privacy and access to shared living spaces for the residences which will allow the tenants to feel a certain level of shared ownership over the courtyards within the clusters; such an organization fosters social interactions at a level outside of the nuclear family.

In addition to establishing a strong sense of communal living we also wished to provide dwelling units that will enhance the quality of life while also keeping long-term operating costs to a minimum. As most migrant workers are already spending well over 30% of their meager earnings on housing, we endeavored to reduce utility costs through building form strategies that reduce energy usage and conserved water. To do this, the buildings were designed to take advantage of as many natural heating and cooling strategies as possible. The living units are oriented to mitigate solar heat gain, both inside and out. The clustered, aggregated building form also provides solar-shading in several areas and protects the interior courtyards from a majority of the day's sun as shade can be one of the most sought after possessions for the migrant workers and their families. My teammate and I also developed the floor plans with an orientation that captures prevailing northwestern winds and allows cross-ventilation within each living unit in an effort to minimize the need for artificial cooling.

While solar radiation in Coachella Valley creates extreme internal solar heat gain, the building's material and placement help to mitigate some of the expected heat gain. Using rammed earth from the cut portions of the site's topography, the building's thick envelope will delay the internal heat gain up to eight hours. Additionally, by carving into the site's topography, the building forms are embedded into the ground, making use of the earth's low internal temperature as a means of cooling for the building. The ground temperature just a couple feet can be five to ten degrees cooler than the air temperature in Southern California, so this strategy can make a large impact on the internal temperature of the units as the cooler temperature is transferred into the mass walls. These strategies allow the site to reduce long-term utility costs and provide inexpensive living units to the families and individuals working in Coachella Valley farming industry.

Another element that we felt was important to place on the site was gardens. Ironically, though the migrant workers toil all day planting and harvesting fresh fruits and vegetables throughout the valley local stores only have canned food on their shelves for the workers. Typically, many of the workers are forced to travel over ten miles to the nearest supermarket to fresh greens. This can be a burden on the families as they often have limited options for transportation and the lack of fresh fruits and vegetables in their diets can lead to serious health issues. Because of this, a significant amount of space was dedicated to gardens on the site, so that each housing unit would have an opportunity to grow their own produce. The gardens were placed as close to the buildings as possible in an effort to take advantage of the partial shade during the day so that they don't bake in the sun. The close proximity to the buildings also allows for integration between the plant irrigation system and the internal water system of the housing units themselves in order to recycle the precious, limited water.

A community center was also designed to provide social services to the tenants that live within the site and the public at large. This is perhaps one of the most important features of the design as the community building gives the residents access to the internet and telephone if they are not able to afford such amenities in their own units. Social workers and different work agencies will also operate out of the center in an effort to educate the residents and other migrant workers in the surrounding area of other, better opportunities that may be out there for them. A clinic would also be located in the community center to provide medical care to the residents. Unfortunately, most migrant workers and their families do not have any form of health insurance and suffer from various health problems due to the harsh in which they are forced to live. Providing these services on the site will be imperative for the betterment of the migrant workers' lives.

The conditions that many migrant workers find themselves living in are tragic. The migrant workers, whether documented or undocumented, all should be allowed the comfort of a decent home. Our design is intended to provide a permanent or transitional housing option for the year round and seasonal migrant workers that come to the Coachella Valley and work in and around

Oasis. The strategies used in the building forms and development of the site should empower and enrich the lives of individuals and families that have very little. The low utilities costs and other services provided will give them a little freedom and lessen the burden of all their expenses on a limited budget. Instead of a dilapidated mobile home that hardly keeps out the rain the residents will be able to sleep at night knowing they are safe. The homes are made for safe living, not just survival.

Unfortunately, even if the housing development is a success with Oasis, California it is merely placing a band-aid on a much larger, and complex social justice issue which plaques the Coachella Valley and other areas within the United States. For many decades migrant workers and their families became the forgotten demographic with no political voice as they worked in harsh conditions with little pay and lived in squalor, dilapidated shacks not fit for human inhabitation. However, the migrant community is starting to find their voice and they are beginning to push back against corporate farming operations and legislation that have caused much of the injustice. Now advocates of social justice across the country are raising increased awareness for this victimized demographic as well. Hopefully, migrant workers and their families will soon realize the American dream as they come looking for work seeking a better life than the one they previously had, a life in which they receive fair pay for their labor and are able to afford a decent home and a lifestyle that is indicative of their human dignity.

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I have also provided a smaller version of the board my teammate and I created to present our design solution during the 2014 Cripe Competition. The board highlights many of the most important elements of the design for the migrant housing development in the Coachella Valley.